

304 R. 375

Work Order ID 89384

\*89384\*

Page 1

August-24-12 1:45:04 PM

Item ID: D2327-3

Accept

\*N9000040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Spacer Bushing

Start Date: 8/15/12 Start Qty: 40.00

\*40\*

Cust Item ID:

Required Date: 8/15/12 Req'd Qty: 40.00

\*40\*

Customer:

Reference:

Run Start \*NR1\*

Approvals: Process Plan: MLJ Date: 12/08/29 Tooling:

Date:

Stop \*NR2\*

QC:

Date: SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2327	Rev D								

100  
\*100\*  
Hardinge  
Hardinge CNC Lathe Small

Hardinge CNC LATHE SMALL  
Memo  
Turn per Folio FA232 and Dwg D2327 Deburr

0.00  
0.00

12/09/23

40 0

110  
\*110\*  
QC  
Quality Control

QC2- Inspect parts off machine FAI/FAIB  
Memo

0.00  
0.00

12/09/23

40 0

120  
\*120\*  
QC  
Quality Control

QC8- Inspect parts - second check  
Memo

0.00  
0.00

12.9.23

40 0

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>					
<b>Root Cause</b>	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
<b>FAULT CATEGORY</b>											
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions, Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other		

Work Order ID 89384

\*89384\*

Page 2

August-24-12 1:45:04 PM

Item ID: D2327-3 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Spacer Bushing

Start Date: 8/15/12 Start Qty: 40.00 \*40\* Cust Item ID:  
 Required Date: 8/15/12 Req'd Qty: 40.00 \*40\* Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*  
 Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>WA</u>	0.00							
*130*									
Packaging	Memo	0.00							
Packaging	*****STOCK IN BASKET CELL*****								
140	QC21- Final Inspection - Work Order Release	0.00							
*140*									
QC	Memo	0.00							
Quality Control									

40x PL12-9-24

12/9/24 MF

12-09-24

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>					
<b>Root Cause</b>	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY										
<b>Landing Gear</b>			<b>General</b>			<b>Grain</b>		<b>Other</b>		
<input type="checkbox"/> Bending	<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> Cracks	<input type="checkbox"/> Crushed/Crimped.	<input type="checkbox"/> Cuffs	<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Wave/Twist in Tube
<input type="checkbox"/> Bend	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Burrs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Countersink	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Drawing	<input type="checkbox"/> Finish	<input type="checkbox"/> Folio
<input type="checkbox"/> Grain	<input type="checkbox"/> Hardware	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Misread	<input type="checkbox"/> Offset	<input type="checkbox"/> Out of Calibration	<input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions
<input type="checkbox"/> Ovalized	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Part Moved	<input type="checkbox"/> Positioned Wrong	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced	<input type="checkbox"/> Temperature/Cure	<input type="checkbox"/> Weld	<input type="checkbox"/> Wrong Stock Pulled
<input type="checkbox"/> Other _____										

# Picklist Print

August-24-12 1:45:04 PM

Page 1

Work Order ID: 89384

Parent Item: D2327-3

Parent Item Name: Spacer Bushing

Start Date: 8/15/12

Required Date: 8/15/12

Start Qty: 40.00

Required Qty: 40.00

Comments: IPP F05.11.02Removed 303 SSKJ/EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304R0.375 304 ROUND BAR 0.375		Purchased	No			100	f	53.2790	0.1563	6.581052		8/12/09/23	

Location	Loc Qty	Loc Code
MAT029	53.279	
119346	1.564	
120204	2.721	
121380	4.807	
121728	24.537	
122504	19.65	
122831		

6.333'

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>					
<b>Root Cause</b>	<b>Date</b>	<b>Step</b>	<b>Qty</b>	<b>Description of work order update or Non-conformance</b>	<b>Initial Chief Eng</b>	<b>Action Description</b>	<b>Sign &amp; Date</b>	<b>Verification</b>	<b>QC Inspector</b>		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											

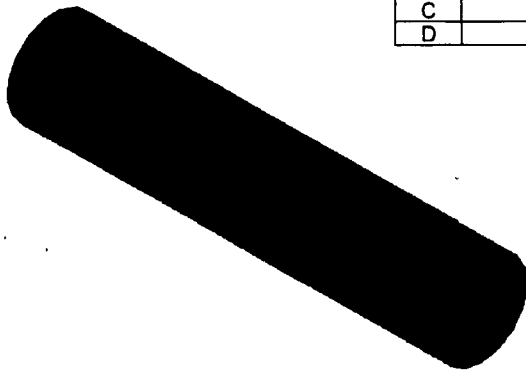
  

FAULT CATEGORY				
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other



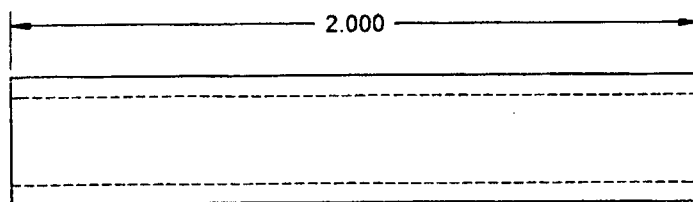
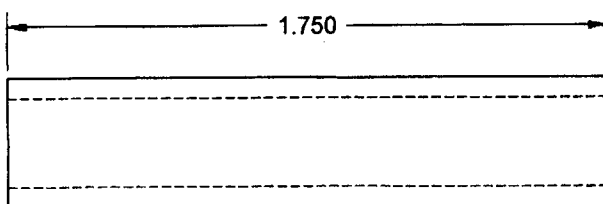
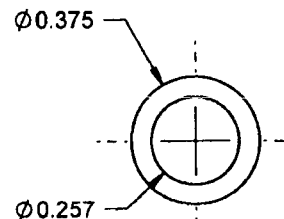
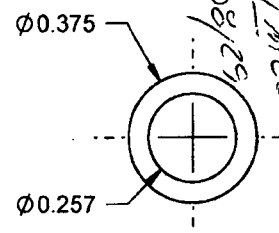
**DART**

DESIGN BW	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED LE	APPROVED H	DRAWING NO. D2327	REV. D SHEET 1 OF 1
DATE 06.10.12		TITLE SPACER BUSHING	SCALE 2:1
REV	DATE	DESCRIPTION	
A	94.12.17	NEW ISSUE	
B	95.12.06	LENGTH CHANGE	
C	03.05.13	303 SS SPEC ADDED	
D	06.10.12	REMOVE 303 SS MATERIAL	



RELEASED

06.11.14

**D2327-1 SPACER BUSHING****D2327-3 SPACER BUSHING****NOTES:**

- 1) MATERIAL: AISI 304/316 SS,  $\phi 0.375$ , 0.065 WALL SEAMLESS ROUND TUBING (REF. DART SPEC M304TR0.375W.065)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP CORNERS TO 0.010 MAX



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STOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

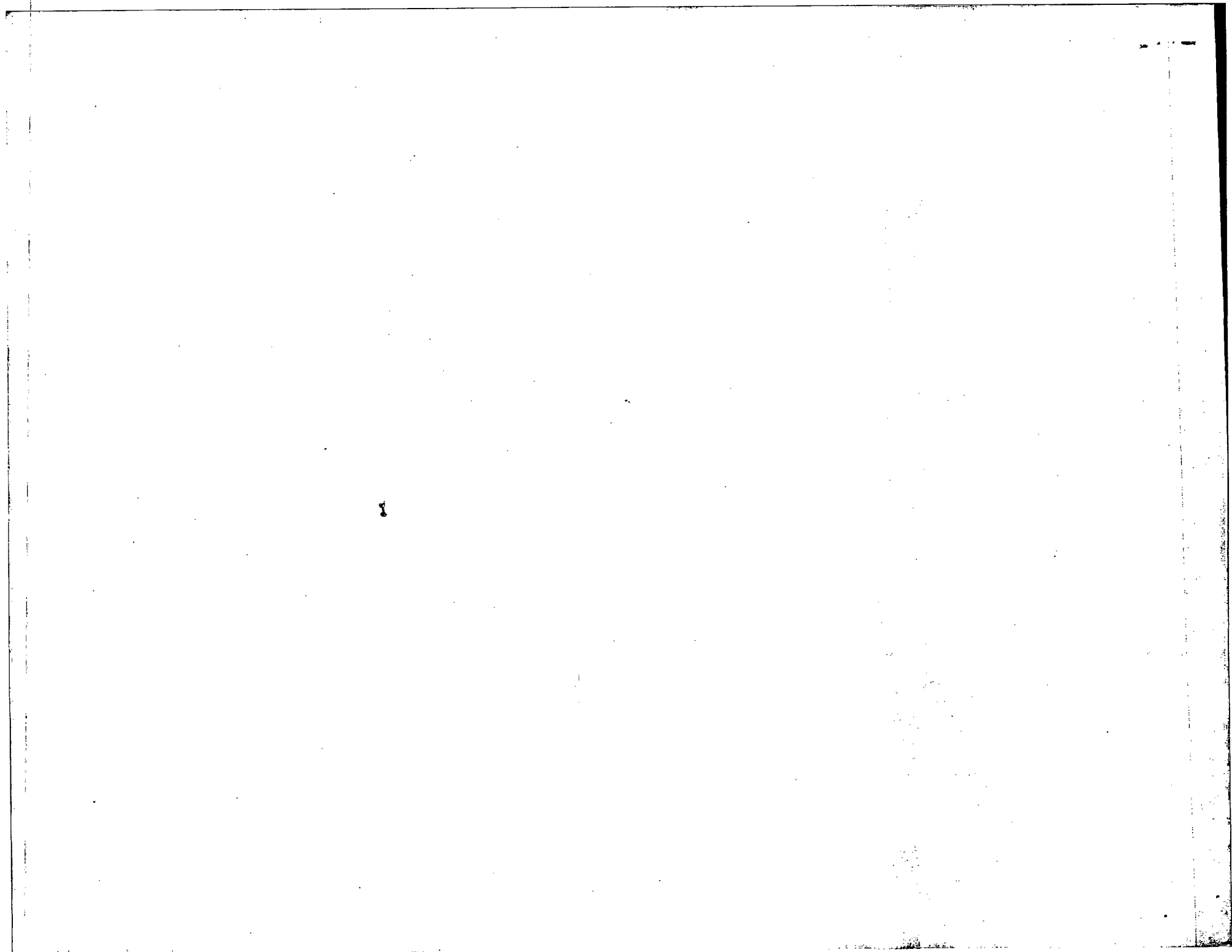
WITHOUT NOTICE

WORK ORDER

NO. 89384 M.C.S

12/08/29





## Receiving Report

Date: 12/8/27 Batch No: M12283  
 Supplier: MEDIA CASTLE Dart P/O: 17688

Packing Slip: Yes ☒ No ☐  
 Invoice: Yes ☒ No ☐  
 Receipt: Cash ☐ Cr ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐  
 Waybill Attached: Yes ☐ No ☒ N/A ☐  
 Shipment Complete: Yes ☒ No ☐ N/A ☐  
 QC6 Inspection OK 12/09/12 N/A ☒  
 Work Order                      N/A ☒

### Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
<u>M4130R5-048</u>		<u>36</u>	<u>0</u>	<u>0</u>	<u>36</u>	

Initials of receiver (if shipment OK) Level 12                     

Production/Admin: 12/8/27  
 Date                       
 Received/Costing                       
 Initial                     

Location

All amounts are calculated in domestic currency.

All Vendors PO ID PO17698 Receipt Dates from 8/27/2012 to 8/27/2012 All Line Item Types  
All Item ID/GL/WOs All Rec. Employees All Currencies  
Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
VendorID/Vendor Name		VC-MET001	Metaux Castle								
PQ17698	1		M174B1.250X02.000 f		8/29/2012	8/27/2012	24.6667	\$46.72	0.0000	0	\$1,152.45
CAD	No		17-4 SS Bar 1.250 x 2.00	f	24.0000	DESJ02		\$1,152.45	0.0000	0	
			122831								
	2		M174R0.750 f		8/29/2012	8/27/2012	24.0000	\$5.70	0.0000	0	\$136.68
	No		17-4 Round Bar .750	f	24.0000	DESJ02		\$136.68	0.0000	0	
			122831								
	3		M304R0.375 f		8/29/2012	8/27/2012	48.0000	\$1.40	0.0000	0	\$67.25
	No		304 ROUND BAR .375	f	48.0000	DESJ02		\$67.25	0.0000	0	
			122831								
Total Received Quantity:											96.6667
Total Qty to Inspect (PO U/M):											0.0000
Total Reject Quantity:											0.0000
Total Receipt Value:											\$1,356.39
Total Balance Due Quantity:											0.0000

**Castle Metals®**

A. M. Castle &amp; Co.

PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

Page 1 of 1

Shipment No:1442322

<b>Ship From:</b> A. M. Castle & Co. (Canada) Inc. MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
<b>Date Shipped</b> 24-AUG-2012	<b>F.O.B.</b> ORIGIN	<b>Freight Terms</b> Prepaid	<b>Carrier</b> MANITOULIN		<b>BOL No</b> 1442322-2		

<b>Shipment Details</b>	<b>Final Destination Branch - MON</b>
-------------------------	---------------------------------------

<b>Order No</b> 2374031	<b>Line No</b> 3	<b>Item No</b> 15043	<b>Description</b> 0.3750.RD.304/304L.STAINLESS.CF.ANN.132.0000-156.0000 SPECIFICATIONS: ASTM A276				
<b>Purchase Order No</b> 17698		<b>Part Number</b>		<b>Ordered Qty</b> 48.00 FT		<b>Invoice Qty</b> 48.0000 FT	
<b>Details</b>							
<b>Delivery No.</b> 117896135	<b>Mill</b> NORTH AMERICAN STAINLESS	<b>Heat Number</b> B3B1	<b>Mech Id</b>	<b>PCS</b> 4	<b>Width (IN)</b>	<b>Length (IN)</b> 144.0000	<b>Shipped Qty(LBS)</b> 18.0480

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 90 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Date:

Name:

Castle Metals FP

HEAT NUMBER 8381  
 MECHANICAL ID \_\_\_\_\_  
 ITEM CODE 15043  
 LOT NUMBER 145984  
 PO NUMBER 2-10-12  
 RECEIPT DATE NAS  
 SUPPLIER \_\_\_\_\_  
 SPECIFICATION \_\_\_\_\_  
 LCS NO  
 COMMENT AS  
 APPROVED \_\_\_\_\_



27



# METALLURGICAL TEST REPORT

6870 Highway 42 East  
Ghent, KY 41045-9615  
(502) 347-6000

Certificate: 709423 17	Mail To: A.M. CASTLE AND COMPANY 1420 KENSINGTON ROAD-SUITE 220 OAK BROOK IL 60523	Ship To: A.M. CASTLE AND COMPANY 3400 NORTH WOLF ROAD FRANKLIN PARK IL 60131	Date: 2/07/2012 Page: 1 of 1 Steel: 304/304L Finish: Cold Draw Dia/Thk: .3750 in Leg Length: Length: 144.00 in Corrosion: ASTM A262 Prac A/E OK
Customer: 0032 001			
NAS Order: LN 79853 3			
Your Order: 145984	Item Code: 15043		

## PRODUCT DESCRIPTION:

ASTM A193/10a-ASME SA193/10 CL 1 GR B8 (EXC PAR 7.2)  
GRAIN SIZE= 4-6  
Round Bar, Annealed, Cold Draw  
UNS 30400/30403 EN 10204 3.1, ASTM A484/10  
ASTM A276/10, ASTM A479/10a, ASTM A182/10 CHEM ONLY,  
ASME SA479/10a, ASME SA182/10 CHEM ONLY  
AMS 5639H, AMS 5647J, AMS QQS-763B, QQS-763F

## REMARKS:

COMPLIES W/REQUIREMENTS OF DFARS EU DIRECTIVE 2002.95.  
EC. RoHS. EAF+ACD+CC. NO WELD REPAIR. MELTED AND MFG IN USA  
FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight
BE36080	1706								

## CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

Heat	Supplier #	CM	C	CO	CR	CU	MN	MO	N	NI	P	S
B3B1		US	.018	.13	18.22	.35	1.34	.26	.056	8.62	.030	.0280
		SI										
		.31										

## MECHANICAL PROPERTIES

	1 d o i c f	HB	.2YS KSI	UTS KSI	RA %	Elong % 2"
BE36080	R L	208.0	92.29	112.25	69.12	41.00

12/09/12

NAS hereby certifies that the analysis on this certification is correct and the material meets the specifications stated.

Technical Dept. Mgr.

ERIC HESS



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO17698

Purchase Order Date 8/16/12

PO Print Date 8/16/12

Page Number 1 of 2

Order From : VC-MET001  
METAUX CASTLE  
A.M. CASTLE & CO. (CANADA) INC. - BOX B9204 PO BOX 9100  
TORONTO, ON M4Y 3A5  
CA

Contact Name

Vendor Phone

514 694 9575

Vendor Fax

514 695 3281

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Ship To : DART AEROSPACE LTD 1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**FAKED**  
8/20/12

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	M174B1.250X02.000 05	17-4 SS Bar 1.250 x 2.000	8/29/12 Yes	24.00 f 27.6667	Yours ppd	\$46.3500	\$1,112.40
		Special Inst: MATERIAL: 17-4 PH SS BAR AS PER AMS 5604/5643 GRAIN MUST BE ALONG LENGTH OF BAR MINIMUM YIELD TENSILE STRENGTH = 100 KSI MINIMUM ULTIMATE TENSILE STRENGTH = 150 KSI					
2	M174R0.750 030	17-4 round bar .750	8/29/12 Yes	24.00 f	Yours ppd	\$5.6500	\$135.60
		Special Inst: MATERIAL: 17-4 PH/S17400 TYPE 630 SS ROUND BAR AS PER AMS 5643 OR ASTM A564					
3	M304R0.375 029	304 ROUND BAR 0.375	8/29/12 Yes	48.00 f	Yours ppd	\$1.3900	\$66.72

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required YES NO

Change Nbr: 1

Change Date: 8/16/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO17698

Purchase Order Date 8/16/12

PO Print Date 8/16/12

Page Number 2 of 2

Order From : VC-MET001  
METAUX CASTLE  
A.M. CASTLE & CO. (CANADA) INC. - BOX B9204 PO BOX 9100  
TORONTO, ON M4Y 3A5  
CA

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	514 694 9575	Requisition Nbr	
Vendor Fax	514 695 3281	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	Destination-Collect

Special Inst: MATERIAL: MATERIAL: 304/316 SS  
ROUND BAR  
AS PER ASTM A276  
NOTE: AISI 303 NOT ACCEPTABLE

4	M4130NS.049	4130 Sheet .049	8/29/12	36.00	Yours ppd	\$8.7500	\$315.00
			Yes	sf			

12-08-24  
Q1 042

Special Inst: MATERIAL: AISI 4130N STEEL SHEET  
AS PER  
MIL-S-18729 OR AMS 6350 OR AMS 6351

PO Total: \$1,629.72

OK 12/09/12

MATERIAL CERTIFICATION  
REQ'D UPON DELIVERY

Change Nbr: 1

Change Date: 8/16/12

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consent.  
Certificate of Conformity or Material  
Certification required - YES NO